

Fibox Digital Fiber-Optic Audio Transmission System

FIBOX SYSTEM

THE FIBER FUTURE MADE AFFORDABLE

The introduction of Fibox marks an extraordinary breakthrough in the transmission of audio signals. For the first time, all the advantages of 20-bit, full-bandwidth digital fiber-optic transmission are available at cost levels easily accessible to virtually any professional audio or broadcast application - from the network teleproduction facility down to the neighborhood church.

FIBOX SYSTEM: CLEAR ADVANTAGES

- No line loss
- No ground loops
- Inherent immunity to EMI and RFI
- High common mode rejection ratio (CMRR)
- 20-bit A/D and D/A conversion: 108dB dynamic range
- 48kHz sampling
- Transmission distances up to 4km (2.5 miles)
- Modular design: expandable from 2 to 12 channels on one fiber
- Analog or AES/EBU digital output
- Data interface for transmission of SMPTE, RS232/422/485, MIDI
- Easy installation and field set-up

A complete Fibox system comprises one or more Input modules, one or more Output modules (either analog or AES/EBU digital), plus fiber-optic cabling and any required power supplies, linking cables, and rack mounting hardware. This data sheet contains detailed information on Analog Output modules only.

FIBOX FBAO-M

TWO CHANNEL ANALOG MASTER OUTPUT MODULE

The FBAO-M accepts and demultiplexes optical signals from a FBAI-M transmitter, and converts two channels of digital signal to analog using state-of-the-art 20-bit co-linear D/A converters. Co-linear converters offer higher resolution near bipolar zero for greater accuracy and significantly reduced distortion. Analog outputs are balanced on XLR connectors, with an average output level of +4dBu and a peak output of +20dBu. A front panel headphone jack is provided for monitoring and signal tracing. Connection of headphones does not interrupt main line outputs.

The FBAO-M also has the capability to accept and demultiplex digital optical signals for up to five additional FBAO-SL slave modules, thus providing facilities for reception of up to 12 channels of full-bandwidth audio on a single fiber-optic cable. Master and slave modules are linked using the optional LKO-6 cable. The FBAO-M master can be linked to either FBAO-SL analog output slaves or FBDO-M AES/EBU digital output modules in any combination. (See separate data sheet for information on Fibox digital output modules.)

FBAO-SL

TWO CHANNEL ANALOG SLAVE OUTPUT MODULE

The FBAO-SL analog slave output module is identical in function to the FBAO-M master module, except that it does not contain circuitry for reception and demultiplexing of the fiber-optic signal. Therefore, it must be used in conjunction with an FBAO-M or FBDO-M master. Up to five FBAO-SL slaves may be linked to each master receiver using the LKO-6 cable accessory.



Actual size.

Available in master and slave models.

APPLICATIONS

Broadcast and Video Post-Production

- Links among multiple studios and mixing/editing suites
- Satellite uplinks/downlinks
- Remote broadcast for sports and special events

Recording Studios

- Replace long cable runs from studio to console
- Multichannel digital links among control rooms
- Direct-to-digital location recording

Concert Sound Reinforcement

- Sonically pure digital links from stage to FOH console, console to amp racks

Commercial Sound Installations

- Schools and universities • Auditoriums
- Convention facilities • Houses of worship
- Stadiums and arenas • Communication in harsh environments with high RFI/EMI emissions

Film Production

- Sound stage and back lot recording
- Field location recording

Units may be installed as stand-alone boxes, or up to 3 master or slave units may be mounted in one 19-inch rack panel using optional RMK rack mount kit.

ELECTRICAL SPECIFICATIONS

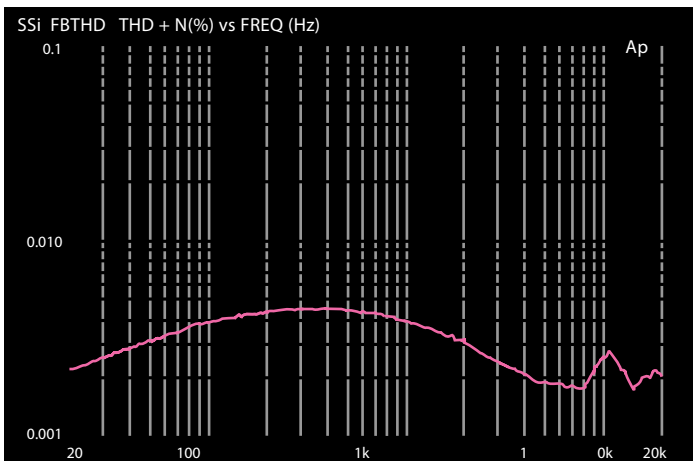
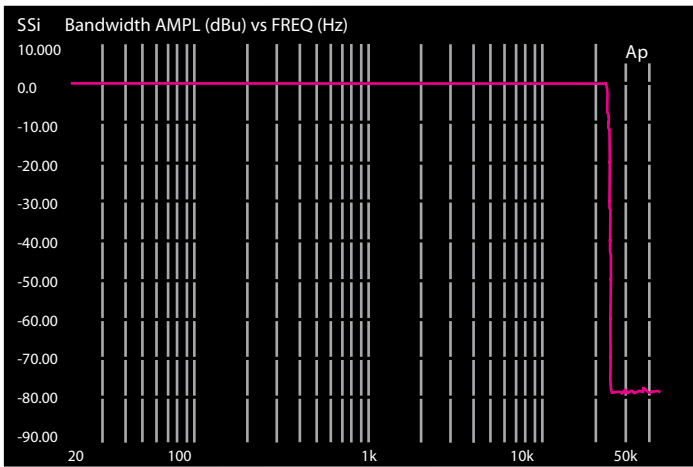
| | |
|-----------------------|----------------------------|
| D/A Converter | 20-bit co-linear |
| Transmission Distance | 4km |
| Bandwidth | (-3dB) 0.1Hz - 21.5kHz |
| Dynamic Range | 108dB typical (A weighted) |
| Channel Separation | 98dB or greater |
| Output Impedance | 39Ω |
| Output Level | +4dB average |
| Monitor Output | -2dB average |

OPTICAL SPECIFICATIONS (FBAO-M only)

| | |
|------------------------------------|--|
| Wavelength | 1310nm (recommended fiber cable 62.5/125 μm) multimode |
| Receiver Optical Input Sensitivity | (Avg.) -33.5dBm minimum -14.0dBm maximum |
| Optical Power Budget | 15.5dBm |
| Single Mode option available | |

PHYSICAL CHARACTERISTICS

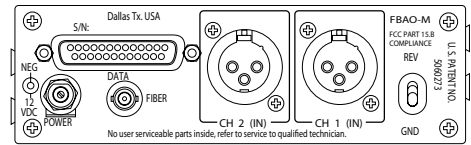
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|------------|---|
| Dimensions | (w x h x d) 6" x 1.75" x 8" 150mm x 44mm x 200mm |
| Weight | 2 lbs. 7.5 oz/1.12kg (master) 2 lbs. 5.7 oz/1.07kg (slave) |



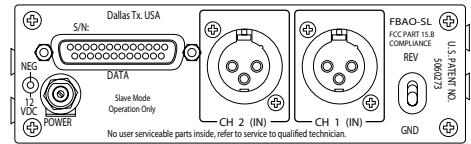
12 MIC/LINE INPUTS
20-BIT A/D
CONVERSION



CONTROL ROOM
20-BIT D/A
CONVERSION



Master Unit Back Panel



Slave Unit Back Panel



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